

Name: \_\_\_\_\_

### p1103: Factoring with box when $a = \text{prime}$ (v19)

#### Example

Use the box to factor  $2x^2 - 9x - 18$ .

Guess and check, based on factor pairs of  $-18$ , until you find the pair that results in a linear coefficient of  $-9$  after combining like terms.

*	x	
		$-6$
$2x$	$2x^2$	$-12x$
$3$	$3x$	$-18$

$2x^2 - 12x + 3x - 18$   
 Combine like terms.  
 $2x^2 - 9x - 18$

ANSWER:  $(2x + 3)(x - 6)$

#### Question 1

Use the box to factor  $3x^2 + 29x + 40$ .

*	x	
$3x$	$3x^2$	
		$40$

ANSWER:

### Question 2

Use the box to factor  $5x^2 - 36x - 81$ .

*	x	
5x	$5x^2$	
		-81

ANSWER:

### Question 3

Use the box to factor  $7x^2 - 64x + 64$ .

*		

ANSWER: